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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/670,596	09/29/2000	Tomohiko Otose	N00195US	4446

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EXAMINER

PHAM, HAI CHI

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 04/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/670,596

Applicant(s)

OTOSE ET AL.

Examiner

Hai C Pham

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-15,17 and 18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-8,15 and 18 is/are rejected.
- 7) ☒ Claim(s) 9-14 and 17 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☒ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 10. 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1-2, 4, 15, 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Fork (U.S. 5,936,657).

Fork discloses an integrating xerographic light emitter array comprising a picture element array (OLED array 20) composed of picture elements containing light-emitting devices (OLEDs) arranged in directions of a picture element line and a picture element string in two dimensions (Fig. 2) (col. 4, lines 39-47), a horizontal scanning circuit (data line driver 32) as one peripheral circuit to feed data signals to each picture element string in said picture element array, and a vertical scanning circuit (multiplexer 30) as

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another peripheral circuit to sequentially select and activate each picture element line in said picture element array (col. 4, lines 56-62) wherein said horizontal scanning circuit and said vertical scanning circuit comprise poly-crystal thin-film transistors (polysilicon layer including the TFT drive transistors 304). Fork further shows in Fig. 1 the picture element array, the horizontal scanning circuit, and the vertical scanning circuit being formed on a same insulating substrate as well as in Fig. 3, where the horizontal scanning circuit (32) and the vertical scanning circuit (30) being formed along with the patterned electrodes (210, 220) between which the organic emitting material is successively deposited (col. 5, lines 6-25).

With regard to claims 15 and 18, Fork further teaches means (control electronics 22) for selectively controlling the energization power of the amounts of light to be emitted from the picture elements.

With regard to claims 2, 4, Fork further teaches the light-emitting device being composed of organic electroluminescence devices (organic light emitting diodes), and a means (control electronics 22) for setting amounts of light to be emitted from the light-emitting device in picture elements constituting the picture element lines by each picture element line constituting said picture element array (col. 3, lines 12-20).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fork ('657) in view of Fork et al. (U.S. 6,072,517).

Fork ('657) discloses all the basic limitations of the claimed invention except for each picture element in a string being passing sequentially on a same spot on the surface of the drum, and the number of picture elements in each string activated by the vertical scanning circuit being changed.

However, Fork et al. ('517) discloses an integrating xerographic light emitter array of the same structure wherein the vertical scanning circuit is so operated that, in a state in which the picture element array is disposed facing a surface of a photosensitive body (14) in a manner that a direction of said picture element line is parallel to a rotation axis of said photosensitive body (Fig. 1), activates said picture element line containing each picture element while each picture element contained in each picture element string in said picture element array is passing sequentially on a same spot on a surface of said photosensitive body, with rotation of said photosensitive body (col. 6, lines 20-67). Fork et al. ('517) further teaches the number of picture elements in said each picture element string activated by said vertical scanning circuit being able to be changed (Figs. 5, 6) (col. 6, lines 26-35).

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify the device of Fork ('657) with the aforementioned teachings of Fork et al. ('517). The motivation of doing so would allow

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the exposure of any pixel on the drum to be varied in a number of grey levels as indicated by Fork et al. ('517) (see Fork et al.'s Abstract).

***Allowable Subject Matter***

5. Claim 9-14, 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

6. Applicant's arguments with respect to claims 1-2, 4, 15, 18 have been considered but are moot in view of the new grounds of rejection presented in this Office action.

***Additional Pertinent Prior Art***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Huang et al. (U.S. 5,789,766) discloses a two-dimensional LED array and associated column and row driver circuitry formed on the same substrate.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai C Pham whose telephone number is (703) 308-1281. The examiner can normally be reached on T-F (8:30-5:30).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benjamin R. Fuller can be reached on (703) 308-0079. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722, (703) 308-7724, (703) 308-7382, (703) 305-3431, (703) 305-3432 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



HAI PHAM  
PRIMARY EXAMINER

March 29, 2003